

## CLAIMS

What is claimed is:

1. A method for developing virtual machine implementations, comprising:  
5 providing library functions that call functions declared in a virtual machine; and  
declaring in a first virtual machine implementation, a set of functions for executing  
substantially all virtual machine operations required by the library functions that are  
dependent on the first virtual machine implementation.
- 10 2. The method of claim 1, further comprising replacing the first virtual  
machine implementation with a second virtual machine implementation, wherein the  
library functions may be readily utilized with the second virtual machine implementation.
3. The method of claim 1, wherein at least some of the library functions are  
15 called by the functions declared in the first virtual machine implementation.
4. The method of claim 1, wherein the set of functions includes all operations  
that are dependent on the implementation of the first virtual machine implementation.
- 20 5. The method of claim 1, wherein the set of functions includes operations  
that control the first virtual machine implementation, access data and perform input/output  
(I/O) operations.
6. The method of claim 1, wherein the first and second virtual machines  
25 implementations are Java virtual machine implementations.

7. A computer program product for implementing virtual machines, the computer program product being embodied in a computer readable media and comprising:

5 computer code that perform library functions that call functions declared in a virtual machine;

a first virtual machine implementation that performs a set of functions for executing substantially all virtual operations required by the library functions that are dependent on the implementation of the first virtual machine.

10 8. The computer program product of claim 7, wherein the library functions may be readily utilized with a second virtual machine implementation.

9. The computer program product of claim 7, wherein the library functions are called by the functions declared in the virtual machine.

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10. The computer program product of claim 7, wherein the set of functions includes all virtual machine operations required by the library functions that are dependent on the implementation of the virtual machine.

20 11. The computer program product of claim 7, wherein the set of functions includes operations that control the first virtual machine implementation, access data and perform input/output (I/O) operations.

25 12. The computer program product of claim 7, wherein the first and second virtual machine implementations are Java virtual machine implementations.

13. The computer program product of claim 7, wherein the computer readable medium is selected from the group consisting of CD-ROM, floppy disk, tape, flash memory, system memory, hard drive, and data signal embodied in a carrier wave.